Hand Dug Well
City of Seneca - Nemaha County, Kansas
Approved to National Register of Historic Places - August 16, 2006

The Old City Hand Dug Well in the Seneca City Park is the last visible sign of Seneca, Kansas's original water system, installed in 1895. The 65 foot deep by 34 feet wide, rock/brick-lined well may be the widest and second largest hand-dug well in Kansas. Water depth is approximately 15 feet. A domed house with shingled roof covers the well and is topped by a cupola. It was encircled by a six foot chain link fence about 1975 as a safety measure. Children used to scramble up the shingle roof and then slide back down.

The first levels of the wall are constructed of rock set in mortar while the lower portions are of brick and mortar. The rock walls are laid in sections about four foot high , constructed from ground level downward. Heavy planks are still visible beneath each section. During construction, 3 to 4 feet of soil was removed. Then bridge planks were sharpened (tapered) on one end and driven about 3 feet out into undisturbed soil, while resting on the dirt at that level. A ring section of rock wall was laid upon the exposed inner ends of the planks. After the mortar had set in the first ring, the well was dug another four feet deep. Soil was removed from under the driven planks, to allow the next section of wall to be laid directly under the ring above. A ring of planks was driven each time to support the rock. The process was repeated several times until the well was approximately 50 feet deep. At that point the diameter was decreased about three feet forming an offset ledge in the rock wall. Digging probably became more difficult once the water table was reached. Water had to be pumped out to allow for continued digging and wall construction. Soil instability, within water bearing strata, may have been the reason well diameter was decreased. If the soil was too unstable, driven planks could not have supported a wall section while the succeeding ring was dug out and laid.

The walls required upwards of 130,000 bricks, 100 cords of stone, 570 barrels of cement and over 20,000 feet of lumber.

Water was originally pumped from the old well by engine driven pumps. These pumps were located inside a brick Water Works building located southwest of the well. That building was razed in the late 1950's after being used many years for storage.

On July 19, 1899 specifications for deepening the pump pit (in the water works building) were approved. These specifications also required a new tunnel from the pump pit to the well. The tunnel does not exist today, but entered the southwest side of the well where the arched opening is closed with brick , a pipe is still in place. The engine driven pumps were replaced with electric, probably about 1915. The first electric pump is still in place on the bridge.

The old well was discontinued about 1937 when well #1 and well #2 and the million gallon reservoir were built, all on the east side of Seneca. The original 85,000 gallon standpipe, located southeast of the Old Well, continued in use until replaced in 1976 by the one-half million gallon water tower. The Stand Pipe was 12 feet by 100 feet.

In April of 1989, the Seneca Fire Department, planning for it's centennial celebration, July 14 & 15, 1990, encouraged the city council to restore the Old Well as a tourist attraction. The project was not started until 1990 when a local contractor agreed to undertake the renovation. The cupola was dismantled in sections, repaired and reinstalled. The rafters of the main roof were repaired with scabs added of sufficient length and installed to blend with the original. The top plate of main roof was rebuilt. The stonework was repaired where existing "I" beams were set into the stone walls. Wooden support pieces were installed between 4 x 4 uprights on inside stringers. New decking was built, supported on the "I" beams and angle irons bolted to inside stringers. Originally the bridge was little more than planks on top of two fifteen inch tall "I" beams which span the well. Heavy Plexiglas was installed from the bridge deck to the railing which allows children to view the well and prevents any objects falling through. The area above the railing is enclosed with a pipe & welded wire cage. This is constructed in such a way as to allow visitors to lean over the rail and look directly into the well. Restoration was complete by the end of May.

Approximately 420 visitors viewed the Old Well on the weekend of July 14 & 15, 1990. Over 100 names on the sign-in book were addresses of non-Seneca visitors. At least forty-nine were visiting from outside Nemaha County.

The local golf club association was granted city permission to test pump the well in 1989. It was determined the well could supply adequate water, to water the fairways. Static storage capacity was 90,000 gallons and the calculated recovery was about 90 gallons per minute. With this information the golf club installed pumps and pipeline to connect with their existing fairway watering system. Submersible pumps and a service platform was installed under the bridge. Only the electrical control box was mounted above the bridge. This use was discontinued in 2006 when the golf course was relocated. The supply was no longer sufficient and had to be supplemented.

Other hand dug wells in Kansas are listed thus: Selkirk, Kansas (1887) is 24 feet wide and 102 feet deep; Westmoreland, Kansas (1914) is 30 feet wide and 38 feet deep; Greensburg, Kansas (1884) is 32 feet wide and 109 feet deep.

This information has been updated & revised August 2008, by Robert Ackerman. Research done in 1990 and before combined with information gathered since has been utilized for this update.